

Application Ser. No. 10/785,371
GAU: 3729

Amendment A

Claims:

1. (Currently amended) A method for maintaining reliability of a ~~support to a~~ Printed Circuit Board support apparatus, the method comprising the steps:
utilizing elongated support members to support a Printed Circuit Board during a solder paste application process used to apply solder paste onto said Printed Circuit Board,
wherein said elongated support members are positioned positioning elongated support members in an array layout to support a said Printed Circuit Board-printed circuit board, wherein each of the elongated support members are configured and held within apertures of within a base member,
profiling said elongated support members by adjusting a vertical position of said elongated support members within said apertures in a manner to match a profile of said Printed Circuit Board, and
deflecting said solder paste from impinging upon from an interface between the said elongated support member and the said aperture of said base member with using a protective collar.
2. (Currently amended) The method of Claim 1 wherein the said protective collar is of molded rubber-a pliant material.
3. (Currently amended) The method of Claim 2 ~~further comprising the step of protecting the printed circuit board with the inclusion of a compliant contact area-Claim 1~~ further comprising the step of protecting said Printed Circuit Board by utilizing a compliant material positioned on said elongated support members proximate a location where said elongated support members contact said Printed Circuit Board.
4. (Currently amended) The method of Claim 3 ~~wherein the step of protecting the printed circuit board is accomplished with a portion of the protective collar~~ Claim 1

Application Ser. No. 10/785,371
GAU: 3729

Amendment A

further comprising the step of protecting said Printed Circuit Board by using said protective collar fabricated of a compliant material, and designing said protective collar to additionally comprise an area which covers a point of contact between said elongated support members and said Printed Circuit Board.

5. (Currently amended) The method of Claim 1 ~~wherein the protective collar is included in the fabrication of the elongated support member~~ wherein said step of deflecting said solder paste from said interface between said elongated support member and said aperture of said base member using a protective collar, wherein said protective collar is fabricated as a feature of said elongated support member.

6. (Added) The method for maintaining reliability of a Printed Circuit Board support apparatus of Claim 1, the method comprising the additional step of:
applying a holding force to said elongated support members in said profiled position.

7. (Added) The method for maintaining reliability of a Printed Circuit Board support apparatus of Claim 3, the method comprising the additional step of:
applying a holding force to said elongated support members in said profiled position.

8. (Added) An apparatus for supporting a Printed Circuit Board during a solder paste application process, said apparatus comprising:
a plurality of elongated support members,
a base to hold said elongated support members, said base comprising an upper plate with perforations,
said elongated support members are positioned into perforations of said upper plate and adjust vertically to match the profile of and support said Printed Circuit Board during a process for applying solder paste, and

Application Ser. No. 10/785,371
GAU: 3729

Amendment A

a protective collar used to deflect solder paste from impinging upon an interface between said elongated support members and perforations.

9. (Added) The apparatus for supporting a Printed Circuit Board during a solder paste application process of Claim 8, said protective collar is of a pliant material.

10. (Added) The apparatus for supporting a Printed Circuit Board during a solder paste application process of Claim 8, said apparatus further comprising a compliant material positioned on said elongated support members proximate a location where said elongated support member contacts said Printed Circuit Board.

11. (Added) The apparatus for supporting a Printed Circuit Board during a solder paste application process of Claim 8, wherein said protective collar is fabricated of a compliant material, and designing said protective collar to additionally comprise an area which covers a point of contact between said elongated support members and said Printed Circuit Board.

12. (Added) The apparatus for supporting a Printed Circuit Board during a solder paste application process of Claim 8, wherein said protective collar is fabricated as a feature of said elongated support member.

13. (Added) The apparatus for supporting a Printed Circuit Board during a solder paste application process of Claim 8, said apparatus further comprising a mechanism to secure said elongated support members in a profiled position.

14. (Added) A solder paste application apparatus, said solder paste application apparatus comprising:

an elongated support member apparatus comprising:

- a plurality of elongated support members,

Application Ser. No. 10/785,371
GAU: 3729

Amendment A

- a base to hold said elongated support members, said base comprising an upper plate with perforations,
 - said elongated support members are positioned into perforations of said upper plate,
 - and a protective collar used to deflect solder paste away from an interface between said elongated support members and perforations,
- a machine base for supporting said elongated support apparatus, and
a solder paste application apparatus.

15. (Added) The solder paste application apparatus of Claim 14, wherein said elongated support member apparatus further comprising a mechanism to secure said elongated support members in a profiled position.

16. (Added) The solder paste application apparatus of Claim 15, said elongated support member comprising at least one of:

- wherein said protective collar is of a pliant material,
- said elongated support member apparatus further comprising a compliant material positioned on said elongated support members proximate a location where said elongated support member contacts said Printed Circuit Board,
- said protective collar is fabricated of a compliant material, and designing said protective collar to additionally comprise an area which covers a point of contact between said elongated support members and said Printed Circuit Board, and
- said protective collar is fabricated as a feature of said elongated support member.

17. (Added) The solder paste application apparatus of Claim 14, said protective collar is of a pliant material.

Application Ser. No. 10/785,371
GAU: 3729

Amendment A

18. (Added) The solder paste application apparatus of Claim 14, said elongated support member apparatus further comprising a compliant material positioned on said elongated support members proximate a location where said elongated support member contacts said Printed Circuit Board.

19. (Added) The solder paste application apparatus of Claim 14, wherein said protective collar is fabricated of a compliant material, and designing said protective collar to additionally comprise an area which covers a point of contact between said elongated support members and said Printed Circuit Board.

20. (Added) The solder paste application apparatus of Claim 14, wherein said protective collar is fabricated as a feature of said elongated support member.